

Listing of Claims

1-62. (cancelled)

63. (currently amended) An organic waste material treatment process for organic waste material received in a vessel comprising the sequential steps of:

a) subjecting contents of the vessel to conditions under which preliminary aerobic pre-conditioning of the contents of the vessel proceeds and the temperature of the contents of the vessel is raised to at least 50°C;

b) sealing the vessel after step a) to prevent ingress of air thereto so that aerobic bacteria in the vessel cause the oxygen content thereof to be depleted, wherein metabolic processes of the aerobic bacteria convert oxygen to carbon dioxide;

c) adjusting water content of the contents of the vessel after step b) to 50 to 95% wet weight;

d) simultaneously with or subsequently to step c) adding an anaerobic bacterial inoculum to the contents of the vessel;

e) anaerobically digesting the contents of the vessel after steps c) and d);

f) separating gaseous byproducts resulting from step e);

g) reducing the water content of residual material in the vessel;

h) evenly distributing air to the residual material in the vessel to create conditions suitable for aerobic composting of the residual material to proceed without agitating the contents of the vessel at a pressure of between 1 -1000 kPa above atmospheric pressure to ensure even penetration of the residual material by the air;

i) aerobically composting the residual material by action of aerobic bacteria; and

j) recovering compost resulting from step i) from the vessel.

64. (previously presented) The organic waste material treatment process according to claim 63, wherein air is administered to the contents of the vessel in step a) at a pressure of between 1 - 1000 kPa above atmospheric pressure to ensure even penetration of the contents of the vessel by the air.

65. (previously presented) The organic waste material treatment process according to claim 64, wherein air is administered to the contents of the vessel at a pressure of between 5 -50 kPa above atmospheric pressure to ensure even penetration of the contents of the vessel by the air.

66. (previously presented) The organic waste material treatment process according to claim 65, wherein air is administered to the contents of the vessel at about 25 kPa above atmospheric pressure.

67. (previously presented) The organic waste material treatment process according to claim 63, wherein air is administered to the residual material at step h) at a pressure of between 5-50 kPa above atmospheric pressure to ensure even penetration of the residues by the air.

68. (previously presented) The organic waste material treatment process according to claim 67, wherein air is administered to the residual material at step h) at a pressure of about 25 kPa above atmospheric pressure to ensure even penetration of the residues by the air.

69. (currently amended) An organic waste material treatment process for organic waste material received in a plurality of interconnected vessels comprising the steps of:

a) subjecting the contents of the or each vessel to conditions under which preliminary aerobic pre-conditioning of contents of the vessel proceeds in order to raise the temperature of the contents of the vessel to at least 50°C;

b) sealing the or each vessel after step a) to prevent ingress of air thereto so that aerobic bacteria in the or each vessel cause the oxygen content thereof to be depleted, wherein metabolic processes of the aerobic bacteria convert oxygen to carbon dioxide;

- c) adjusting water content of the contents of the or each vessel after step b) to 50 to 95% wet weight;
- d) simultaneously with or subsequent to step c) adding water received from an interconnected vessel to the or each vessel to create conditions suitable for anaerobic digestion of the contents to proceed in the or each vessel, whereby contents of the interconnected vessel have already undergone anaerobic digestion and the water contains an anaerobic bacterial inoculum;
- e) anaerobically digesting the contents of the or each vessel after steps c) and d);
- f) separating gaseous by-products resulting from step e);
- g) removing at least a portion of the water from the or each vessel and transferring the removed portion of the water to another interconnected vessel for use in step d);
- h) evenly distributing air to residual material in the or each vessel to create conditions suitable for aerobic composting of the residual material to proceed without agitating the contents of the vessel at a pressure of between 1 -1000 kPa above atmospheric pressure to ensure even penetration of the residual material by the air;
- i) aerobically composting the residual material by action of aerobic bacteria; and
- j) recovering compost resulting from step i) from the or each vessel.

70. (previously presented) The organic waste material treatment process according to claim 69, wherein air is administered to the contents of the or each vessel in step a) at a pressure of between 1 -1000 kPa above atmospheric pressure to ensure even penetration of the contents of the or each vessel by the air.

71. (previously presented) The organic waste material treatment process according to claim 70, wherein air is administered to the contents of the or each vessel at a pressure of between 5 -50 kPa above atmospheric pressure to ensure even penetration of the contents of the or each vessel by the air.

72. (previously presented) The organic waste material treatment process according to claim 71, wherein air is administered to the contents of the or each vessel at about 25 kPa above atmospheric pressure.

73. (previously presented) The organic waste material treatment process according to claim 69, wherein air is administered to the residual material at step h) at a pressure of between 5 -50 kPa above atmospheric pressure to ensure even penetration of the residues by the air.

74. (previously presented) The organic waste material treatment process according to claim 73, wherein air is administered to the residues at step h) at a pressure of about 25 kPa above atmospheric pressure to ensure even penetration of the residues by the air.